
PULSED MAGNETIC CONTROL SYSTEM FOR INTERLOCKING FUNCTIONS OF BATTERY POWERED LIVING TISSUE STIMULATORS

Abstract

A magnetic control system for selectively enabling/disabling an implantable device's operation using externally applied pulsed magnetic means, e.g., a controlled electromagnet or the like. Typically, such implantable devices stimulate a neural pathway or muscle and/or block pain or muscle stimulation according to programmable settings. Preferably, once programmed from an external programmer, such implantable devices can operate "independently" using the externally provided programmed information. However, in certain circumstances, it may be desired to stop/pause the operation of such selected implanted device while not affecting other such devices. Accordingly, embodiments of the present invention include a magnetic sensor, preferably a magnetoresistive, Hall effect, saturated core reactors, or the like, to sense an externally provided magnetic field. By externally applying pulsed magnetic fields in sequences of controlled polarities, durations, intensities, etc., and sensing these identifiable sequences and transitions, the operation of the implantable device may be enabled/disabled.